

ABSTRACT OF THE DISCLOSURE

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5 A search of the public human genome database identified
a human EST, GenBank accession number AW293249, which has high
homology to known pufferfish urocortin sequences. The full length
sequence was amplified from human genomic DNA and sequenced.
Sequence homology comparisons of the novel sequence with human
urocortin I and urocortin II revealed that the sequence encoded a
10 novel human urocortin, which was designated urocortin III (UcnIII).
While urocortin III does not have high affinity for either CRF-R1 or
CRF-R2, the affinity for CRF-R2 is greater than the affinity for CRF-
R1. Urocortin III is capable stimulating cyclic AMP production in
cells expressing CRF-R2 α or β . Thus, the affinity is high enough that
15 urocortin III could act as a native agonist of CRF-R2. However, it is
also likely that urocortin III is a stronger agonist of a yet to be
identified receptor.